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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Inventor: Paul E. ARRASMITH et al. Examiner: Omar Flores Sanchez

Serial No: 09/828,953 Art Unit: 3724

Filed: April 10, 2001 Atty Dkt: ARPA003/JEK/JJC

For: IMPELLER FOR ROTARY SLICING MACHINE

RESPONSE AND AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

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TECHNOLOGY CENTER R3700

This is responsive to the Official Action dated June 14, 2002 in the above application. In view of the following amendments and remarks, reconsideration of the application is respectfully requested.

AMENDMENT

Please amend the application in accordance with the following particulars.

IN THE CLAIMS

Please amend claim 1 as shown on the APPENDIX OF MARKED-UP VERSION OF CLAIM. Claim 1 is also provided in a clean format on the APPENDIX OF CLEAN CLAIM.

RESPONSE

In the Office Action, claim 1 has been rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent 2,349,212 (Urschel et al.) in view of U.S. Patent 4,782,729 (Mathot). Applicants respectfully traverse this rejection on the basis that Urschel et al. and Mathot, whether considered independently or collectively, do not disclose or suggest an impeller for a rotary food product slicing machine as recited in claim 1 of the present invention. Applicants also assert that the rejection in the Office Action is based on an incorrect interpretation of the cited references and further maintain that the alleged combination Urschel et al. and Mathot would not result in the present invention of claim. Applicants will address each of these points in the following discussion.

a. Invention Distinguished

The present invention relates to an impeller for a food product slicing machine. The impeller is generally annular in configuration and is intended to be rotated in a given direction about an axis of rotation within a non-rotating annular drum housing supporting a stationary knife assembly located near the periphery of the impeller to convey elongated food products across the one or more knives. The impeller includes a circular rear base plate and at least one forward located annular ring. A plurality of food conveying paddles span radial surfaces of a rear base plate and a ring of the impeller. The paddles are located in circumferentially spaced, generally radially oriented relationship relative to the rear plate and the ring so that radially outer generally axially extending edges of the paddles are located adjacent the circumferences of the rear plate and the ring.

Each paddle includes radially inner axially extending edges and each paddle terminates at an end thereof located respectively at a radial surface of the rear plate

and the ring. The paddles are each oriented to extend at an angle relative to a radius of the rear plate and the ring such that the radially inner axially extending edge of each paddle is located in leading relationship relative to the radially outer axially extending edge of the respective paddle with respect to an intended direction of rotation of the impeller.

In the embodiment of claim 1, the end of each paddle is located adjacent the rear base plate in at least a partially trailing relationship relative to the end of each paddle located adjacent the ring with respect to an intended direction of rotation of the impeller. The arrangement of the impeller paddles permits elongated food products to be carried by the impeller during rotation such that the food products are aligned axially along the paddles and urged so that one end of each of the food products is located against the rear base plate.

b. References Distinguished

Urschel et al. discloses a food dicing machine having a dicing knife assembly. Applicants submit that Urschel et al. does not disclose or suggest a rotary impeller configured to carry food products and urge the food products against a knife assembly disposed near the periphery of a drum in which the impeller is disposed.

In observing Fig. 3 of Urschel et al., a rotatable assembly 58 of dicing knives 62 is disclosed. Contrary to the assertion in the Office Action, the rotatable assembly having dicing knives 62 in Urschel et al. is not comparable to the impeller of the present invention.

First, Urschel et al. does not disclose paddles, as defined in the present application. It appears the rejection in the Office Action is based on the assumption that the dicing knives 62 in Urschel et al. are "paddles" as defined in the present application. As recited in claim 1 of the present invention, the impeller is generally annular in configuration and is intended to be rotated in a given direction about an axis of rotation within a non-rotating annular drum housing supporting one or more fixed cutting knives

located near the periphery of the impeller to convey elongated food products across the one or more knives. As clearly shown in Fig. 2, the rotatable assembly of Urschel et al. is not disposed in a drum, nor is there a stationary knife assembly located near the periphery of the rotatable assembly. Consequently, Urschel et al. fails to disclose or even suggest the particular environment in which the impeller of the present invention is used.

The purpose of the paddles of the impeller of the present invention is to convey food products across the stationary knife assembly disposed near the periphery of the impeller. In the preamble to claim 1, the paddles are defined in specific terms as being confined between the rear base plate and the ring and within a drum. It is quite clear in claim 1 that the food conveying paddles are arranged in the impeller to cause the food products to be generally axially aligned along the paddles and urged so that one end of the food product is located against the base plate of the impeller. It is not recited, nor is it the function of the paddles of the present invention to perform any slicing operation.

In view of the comments in the Office Action and the above-comments relating to the rotatable assembly in Urschel et al., it is not clear how Urschel et al. can possibly be construed to teach or suggest an impeller having the paddles of the present invention. In fact, Urschel et al. does not even disclose or suggest a rotary impeller, and therefore cannot be construed to suggest a rotary impeller disposed in a stationary drum and in communication with stationary knives located near the periphery thereof.

Particular attention should be made to the preamble of claim 1 since it does not appear that the preamble of claim 1 of the present invention was taken into consideration when the rejection in the Office Action was made. The environment for the rotary impeller of the present invention is essential to the improvement thereof and the preamble of claim 1 makes it quite clear that the food product slicing machine described therein is already known. It should be pointed out, however, that such a food product slicing machine is not disclosed or suggested in Urschel et al. The difference

over the prior art and the present invention, as detailed in the present specification, is that claim 1 describes an improved impeller wherein each paddle is located adjacent the rear base plate in at least a partially trailing relationship relative to the end of each paddle located adjacent the ring with respect to an intended direction of rotation of the impeller.

In view of these observations, it is readily apparent that Urschel et al. fails to disclose or suggest the impeller of the present invention.

Mathot, on the other hand, equally fails to disclose or suggest the impeller of the present invention and therefore does not make up for the shortcomings of Urschel et al.

Similar to Urschel et al., Mathot is incorrectly construed to disclose an impeller since the structure in Mathot used in the rejection to provide a teaching of an impeller is also a rotatable slicing assembly. Specifically, the rejection cites the rotary cutters means having cutters 67 in Mathot as being the equivalent of the paddles of the present invention. Already it has been established that the paddles of the present invention are not adapted to slice food products, and instead are arranged to convey food products within a stationary drum to a knife assembly located near the periphery of the impeller. Therefore, the assumption that the cutters in Mathot are "paddles" is incorrect.

In comparing the cutters of Mathot to the paddles of the present invention, the Office Action indicates that the purpose of the cutters is to clearly sever pieces of food products. While it is true the cutters of Mathot are used to sever pieces of food, the paddles of the present invention are distinctly defined to convey food products to a knife assembly and not to sever pieces of food products. The rotary cutters means of Mathot is not an equivalent of the impeller of the present invention and therefore, nowhere in Mathot is there a disclosure or suggestion of an impeller wherein each paddle is located adjacent the rear base plate in at least a partially trailing relationship relative to the end

of each paddle located adjacent the ring with respect to an intended direction of rotation of the impeller.

The cutters of Mathot are described as extending transversely for cutting strands of food products and at intervals predetermined by rotary spacing of the cutters to form meat pieces having predetermined sizes. Such cutters and the cylinder 30 carrying the cutters are not disposed within a stationary drum, and nor are they in communication with a stationary knife assembly. It follows that there is no need for an impeller in Mathot since the cutters perform the cutting operation themselves.

In view of these observations, it is submitted that Mathot does not disclose or suggest the impeller of the present invention.

Applicants assert that there is no motivation to combine Urschel et al. with Mathot to yield the present invention. Specifically, neither of the references disclose or suggest a rotary impeller disposed within a drum and in communication with a knife assembly located near the periphery thereof. Since neither of the references even disclose or suggest a rotary impeller, it follows that neither of the references can disclose a plurality of impeller paddles wherein each paddle is located adjacent the rear base plate in at least a partially trailing relationship relative to the end of each paddle located adjacent the ring with respect to an intended direction of rotation of the impeller. Due to the absence in the disclosures of Urschel et al. and Mathot, it is clear that one of ordinary skill in the art would not be motivated to combine such references to yield the present invention.

Accordingly, Applicants submit that Urschel et al. and Mathot, whether considered independently or collectively, do not disclose or suggest the present invention. Withdrawal of the rejection is respectfully requested.

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In view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that claim 1 be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicants' Attorney, the Examiner is invited to contact the undersigned at the numbers shown below.

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Respectfully submitted,



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